

CLAIMS:

1. A gas friction pump, comprising stationary (6) and rotatable (5), secured on a rotatable rotor shaft (4), pump-active elements, wherein the rotor shaft (4) and the rotatable pump-active elements (5) form components of the rotor, and the rotor shaft (4) is supported by two, spaced from each other, radial bearings (8, 9), of which one is located closer to the gravity center of the rotor than the other, and an axial bearing (16), characterized in that the radial bearing (9), which is located closer to the gravity center of the rotor, is formed as a gas bearing.
2. A gas friction pump according to claim 1, characterized in that the axial bearing (16) is formed as a gas bearing.
3. A gas friction pump according to claim 1 or 2, characterized in that at least one of the bearings consists of an independent module.
4. A gas friction pump according to claim 3, characterized in that the drive (13) consists of an independent module.

5. A gas friction pump according to claim 4, characterized in that at least two bearings are combined in module.

6. A gas friction pump according to claim 4, wherein at least one bearing and the drive are combined in an independent module.

7. A gas friction pump according to one of preceding claims, characterized in that at least one of the modules is brought into engagement with a cylindrical section of the pump housing and is secured.

8. A gas friction pump according to one of preceding claims, characterized in that, sealing means (11) is provided between the gas bearing and a gas outlet region (20).